Pest Update (December 1-15, 2011)

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Note: samples containing living tissue may only be accepted from South Dakota. Please do not send samples of dying plants or insects from other states. If you live outside of South Dakota and have a question, instead please send a digital picture of the pest or problem. **Walnut samples may not be sent in from any location – please provide a picture!**

Available on the net at:
http://sdda.sd.gov/Forestry/Educational-Information/PestAlert-Archives.aspx

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Current information

Should trees and shrubs be watered during this "warm" winter weather? Considering how dry the fall has been and the warmer temperatures we are experiencing across much of the state, it is not too surprising that this is a

common question. The purpose of winter watering is generally thought to be to

replace the soil moisture that is being absorbed by roots and lost back into the atmosphere from the leaves. We often find evergreens in March that have brown foliage due to the drying winter winds. However it is not that simple to replace this water during the winter. First, water loss is minimal during days with air temperatures less than 40^{o}F and essentially stops when the temperatures dip much below 32^{o}F, even for evergreens. Furthermore, water movement up stems during winter days with air temperatures slightly above freezing does not occur on most tree species and is extremely slow in others. Finally, soil temperatures also influence root permeability and water uptake at 33^{o}F may be only one-fifth of that at soil temperatures near 60^{o} to 70^{o}F. The point is that water needs for woody plants in winter are generally minimal and while watering will not harm the tree it may be detrimental to the lawn beneath the tree if the water does not infiltrate into the soil and instead forms a layer of ice over the turf.

Winter watering may be a good practice for some plants, particularly for evergreen shrubs and small trees located along the south side of homes where the daytime air temperatures can reach into the 50^{o}F and even higher. The best way to water woody plants during the winter is to only water when the soils are not frozen and the air temperatures are above 40^{o}F and restrict watering to mid-day so that the water will have an opportunity to soak into the soil before night. However if the trunk is still frozen, even this water will not be absorbed.

Why are my evergreens turning color? Color changes on evergreens are common during the winter and it does not always related to desiccation injury. Scotch and white pine foliage may become yellowish green during the winter, a

normal change, and then become bluish-green again once the weather warms in the spring. Arborvitaes can also turn from a bright green in summer to a very ugly brown during the winter months. Junipers may turn almost a plum purple during the winter but return to green the following summer. Usually the normal winter color change seen in some evergreen species is uniform along the scale foliage or needles. Winter-burn is typically limited to the tips of needles.

E-samples

I received an interesting picture then a sample regarding a Christmas tree pest. It seems that after the tree was set up in the house, hundreds of these small insects appeared. They seem to be fading out and are not a problem now but the homeowner wondered what they were. The insect is the pine aphid (*Cinara*). This is a genus of large brown to black aphids that feed on pines and even firs. The aphid overwinters as eggs on the needle and if brought into the house on the Christmas tree they quickly hatch. The adult aphids begin to give birth to live young so the aphid population appears to explode almost overnight! As the Christmas tree begins to dry these insects begin to explore other areas of the house. The aphids are not harmful, cannot bite people or pets, and will soon begin to die. The only annoying problem with this Christmas houseguest is if you smash one on your favorite couch they leave a big purple stain.

What is this tree? This was a picture sent in by one of the conservation districts. They found the plant growing in a low area and wondered what it was. This is the sandbar willow (*Salix exigua*), also known as the narrowleaf willow as it has one of the narrowest leaves of any willow. This is a common willow in damp depressions and along streams throughout the state. The tree can spread by rhizomes so it usually can be found in thickets that may be 20 feet or more wide. Sandbar willow can also become 15 feet tall.

Samples received

Brookings County **What is this insect collected from a dead ash tree?**

This rather healthy insect is the larvae of the carpenterworm (*Prionoxystus robiniae*). This is a common insect in dead or dying ash trees and is one of the largest larvae you can typically find in these trees as the "worm" can become 2 to 3 inches long. The adult is a large gray moth that appears in late spring to early summer. The presence of the insect is more an indication that the tree is dying rather than the sole reason the tree is dying, but

trunk applications of a permethrin insecticide can prevent the adults from laying eggs on a tree.

Pennington County **What is wrong with these willow tips?**

The abnormal growth at the tips of the branches are willow cone galls caused by a small midge, *Rhabdophaga strobiloides*. The adults (appears as a gnat) place a single egg on the developing terminal bud. Once the egg hatches the feeding activity by the developing insect prevent the bud from opening and forming a shoot and leaves and instead just continues to enlarge as a bud.